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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/619,493	07/16/2003	Hitoshi Akiyama	58799-093	7280
7590 12/23/2008 McDermott, Will & Emery 600 13th Street, N.W. Washington, DC 20005-3096				
EXAMINER				
LU'ONG, ALAN H				
ART UNIT		PAPER NUMBER		
2427				
MAIL DATE		DELIVERY MODE		
12/23/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/619,493

Applicant(s)

AKIYAMA ET AL.

Examiner

ALAN LUONG

Art Unit

2427

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Art unit is changed into 2427

Response to Amendment

This Office Action is responsive to the Amendment filed on 10/27/2008.

Applicant cancelled claims 13, 15-16 and 18-20, so rejection under 35 U.S.C. § 112 is withdrawn. Claims 1-12 are now active in this application.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-6, 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,154,505 to Konishi et al.; in view of US Patent 7,333,791 to Richter et al.; further in view of US Pub. 2002/0184650 by Stone.

Regarding claim 1. Fig. 4 of Konishi illustrates an input unit [1] capable of receiving a first signal [2] and a second signal [3], said first signal being a signal of a broadcast of a first system [analog VSB-modulated terrestrial signals], and said second signal being a signal of a broadcast of a second system [digital VSB-modulated terrestrial signals] (Konishi, col. 11 lines 23-27). **When said first signal [2] is received by said input unit [1],** said received first signal is input to a **primary**

channel selector/demodulator without being passed through a distributor. The **primary channel selector/demodulator** includes a tuner [2], filter [6], trap circuit [11], a same bandwidth filter [12] **which selects channels for said received first and second signals**, same detector [8] and VSB processors [7, 9] for **demodulates** video and audio of **the first signals** and a tuner [3], filter [12], detector 8 and digital VSB processor [10] for **demodulates** video and audio of **the second signals**. (Konishi, col. 9 lines 31-44, and col. 11 lines 6-43). However, Konishi is silent with "a distributor which distributes said received first and second signals to said primary channel selector/demodulator and when said second signal is received by said input unit, said received second signal is distributed by said distributor such that it is input to both said primary channel selector/demodulator and said secondary channel selector/demodulator which selects a channel for an additional information signal included in said received second signal and demodulates said additional information signal.

In an analogous art directed toward a similar problem namely improving the results from a distributor which distributes said received first and second signals. Fig. 2A of Richter illustrates **a distributor [211] which distributes said received first [FAT channel] and second signals [FDC]** (Richter, col. 5 lines 27-42). Therefore, at the time of the invention, it would have been obvious to a person having ordinary skill in the art to modify a receiver of Konishi with a distributor as taught by Richter in order to split an input signal into two outputs signals with same frequency for testing or design target.

Neither Konishi nor Richter fails to teach "a secondary channel selector/demodulator which-selects a channel for an additional information signal included in said received second signal and demodulates said additional information signal".

In an analogous art directed toward a similar problem namely improving the results from a secondary channel selector/demodulator which-selects a channel for an additional information signal included in said received second signal and demodulates said additional information signal. Fig. 3 of Stone illustrates a receiver [113] comprising:

A frequency agile OOB tuner 45 **selects a channel** [Out Of band channel] and a **secondary channel selector/demodulator [52] demodulate for an additional information signal** [encryption] **included in said received second signal** [FDC 34] (Stone, ¶0018 to ¶0020). Therefore, at the time of the invention, it would have been obvious to a person having ordinary skill in the art to modify a receiver of Konishi and Richter with a secondary channel selector/demodulator as taught by Stone, in order to detect out of band information as EPG for monitoring channel information of in-band channels or decrypts the program if encrypted at service provider.

Regarding claim 2: The receiver as claimed in claim 1, Fig. 24 of Konishi illustrates demodulator section of 8VSB-modulated signals for digital terrestrial broadcast as **"said broadcast of said first system comprises a terrestrial broadcast modulated in accordance with an 8 VSB scheme or an OFDM scheme (col. 2 lines 21-40);** and Fig. 25 of Konishi illustrates demodulator section of 16VSB/QAM-modulated signals for

digital **CATV modulated in accordance with a QAM scheme.** (Konishi, col. 2 lines 41-59).

Regarding claim 3: The receiver as claimed in claim 1, Figs. 8 and 9 of Konishi illustrate wherein said primary channel selector/demodulator [203] includes a demodulation circuit capable of demodulating both a terrestrial broadcast signal modulated in accordance with an 8 VSB scheme or an OFDM scheme and a CATV broadcast signal modulated in accordance with a QAM scheme. **(Konishi, col. 15 line 56 to col. 16 line 40)**

Regarding claim 4: The receiver as claimed in claim 1, Figs. 8 and 9 of Konishi illustrate wherein said primary channel selector/demodulator [203] **wherein said primary channel selector/demodulator includes a first demodulation circuit** when switch [221] is switched over to the amplifier [222] **for demodulating a terrestrial broadcast signal demodulated in accordance with an 8 VSB scheme or an OFDM scheme and a second demodulation circuit** when switch [221] is switched to bypass the amplifier [222] **for demodulating a CATV broadcast signal modulated in accordance with a QAM scheme.** (Konishi, col. 15 line 56 to col. 16 line 40)

Regarding claim 5: The receiver as claimed in claim 2, Stone teaches "wherein said additional information includes encryption information on a CATV broadcast signal". **(Stone, ¶0018)**

Regarding claim 6: The receiver as claimed in claim 1, Richter teaches "wherein said secondary channel selector/demodulator includes a QPSK demodulator for demodulating said additional information". (**Richter, col. 1 lines 30-42**)

Regarding claim 9: The receiver as claimed in claim 2, Fig. 4 of Konishi illustrates wherein: **said input unit [1] includes a first input unit [2] and a second input unit [3]; a terrestrial broadcast signal received by said first input unit as Analog VSB tuner is input to said primary channel selector/demodulator [6, 302, 7, 11, 12, 8 and 9]; and a CATV broadcast signal received by said second input unit as Digital VSB tuner; (Konishi, col. 11 lines 6-42), but is silent to input to said distributor.**

In an analogous art directed toward a similar problem namely improving the results from a CATV broadcast signal received by said second input unit inputs to the distributor.

Fig. 2A of Richter illustrates **a distributor [211] which receives the second input contains first [FAT channel] and second signals [FDC] (Richter, col. 5 lines 27-42).**

Therefore, at the time of the invention, it would have been obvious to a person having ordinary skill in the art to modify a receiver of Konishi with a distributor as taught by Richter in order to split an input signal into two outputs signals with same frequency for testing or design target.

Regarding claim 10: The receiver as claimed in claim 1, Fig. 3 of Stone wherein said primary channel selector/demodulator includes: a first primary channel selector/demodulator [42,47,46,49] which selects a [FAT32] In-band channel for said first signal (see Stone, ¶0018) and [42] demodulates NTSC of said first signal and [49]

decode MPEG-2; and a second primary channel selector/demodulator [52] which selects a [FDC 34] Out of band channel for said second signal (**¶0017**) and [52] demodulates EPG information, decryption of said second signal. (Stone, **¶0019- ¶0025**)

3. **Claim 7** is rejected under 35 U.S.C. 103(a) as being unpatentable over Konishi et al.; Richter et al.; and Stone; in view of US Patent 6,348,955 to Tait.

Regarding claim 7: Konishi et al.; Richter et al.; and Stone teach the receiver as claimed in claim 1, but all are silent with "wherein said input unit comprises: a switch which switches between said distributor and said primary channel selector/demodulator so as to selectively input a signal received by said input unit to said distributor and said primary channel selector.

In an analogous art directed toward a similar problem namely improving the results from input unit comprises a switch. Fig. 2 of Tait illustrates **a switch [42] which switches between** analog input signals to **said primary channel selector/demodulator** and digital input signals to **said distributor; so as to selectively input a signal received by said input unit** [12].(Tait, col. 2 lines 43-62) Therefore, at the time of the invention, it would have been obvious to a person having ordinary skill in the art to modify receiver circuitry of Konishi et al.; Richter et al.; and Stone including a RF switch as taught by Tait, in order to provide a novel television receiver that is capable of receiving both digital and analog signals and provide a low cost method of processing digital and analog television signals using a single tuner.

4. **Claim 8** is rejected under 35 U.S.C. 103(a) as being unpatentable over Konishi et al.; Richter et al.; and Stone; in view of US Patent 6,757,029 to Kurihara.

Regarding claim 8: Konishi et al.; Richter et al.; and Stone teach the receiver as claimed in claim 1, but all are silent with "a switch which switches between an input signal from said input unit and a signal from said distributor so as to input one or the other signal to said primary channel selector/demodulator".

In an analogous art directed toward a similar problem namely improving the results from input unit comprises a switch. Fig. 2 of Kurihara illustrates **a switch [13] which switches between** an analog broadcast signals as **an input signal from said input unit [2] and** a Digital broadcast signals as **a signal from said distributor so as to input one or the other signal** to controller [15] associated with AFT [Automatic Fine Tune] (see col. 5 lines 17-21) to select Analog Demodulator [8] for Analog signals and Digital Demodulator [9] for Digital signals from common Tuner [2] **as said primary channel selector/demodulator"** section.(Kurihara, col. 5 line 47 to col. 6 line 4).

Therefore, at the time of the invention, it would have been obvious to a person having ordinary skill in the art to modify receiver circuitry of Konishi et al.; Richter et al.; and Stone including a RF switch as taught by Tait, in order to supply the AFT control signal for the analog broadcast and the AFT control signal for the digital broadcast to the controller. Thus, depending on which of an analog broadcast or a digital broadcast is received, the AFT control can be optimally performed. (Kurihara, col. 3 line 63 to col. 4 line 4).

5. **Claims 11-12** are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,154,505 to Konishi et al. and US Patent 7,333,791 to Richter et al.; in view of US Pub. 2002/0184650 by Stone; further in view of US Pub. 2003/0001970 by Zeidler et al.

Regarding claim 11: Konishi, Richter, Stone discloses a receiver in claim 1; but fail to teach a video display device a display for decoding a signal demodulated by said receiver and displaying it as video, a channel for said demodulated signal being selected by said receiver.

In an analogous art directed toward a similar problem namely improving the results from a video display device. Fig. 1 of Zeidler illustrates **a video display device** [10] comprising: a set top box [10] has the same function as **the receiver as claimed in claim 1**; which has tuner [12] receives Analog signal [19] and Digital signal [21] through splitter [14]; path [19] is feed into Demodulator [16] for demodulating Analog signal into Analog Video and path [21] is feed into Demodulator [18] and MPEG decoder [20] for demodulating Digital signal into MPEG stream. Both **demodulated signals** are coupled to an on screen display graphics system [40] contains A/D and D/A conversion section [42, 46] selectivity by bypass switch [24] to output [60] to **a display device and displaying it as video**, Fig. 2 shows a method to select **a channel for said demodulated signal being selected by switch [43] of said receiver** under control by microprocessor [26]. (Zeidler, ¶0012 to ¶0022). Therefore, at the time of the invention, it would have been obvious to a person having ordinary skill in the art to modify a receiver including a secondary channel selector/demodulator of Konishi, Richter and Stone with

a video display device as taught by Zeidler, in order to provide a technique that insertion of digital information into an analog video source may only be required in certain time intervals. The insertion process inherently degrades the video signal. Signal degradation occurs both during time intervals when digital information is inserted and during time intervals when there is no digital information presented for insertion.

Regarding claim 12: The video display device as claimed in claim 11, Zeidler also teaches **wherein said video display device identifies a broadcast system** by selectivity of switch 14 to select Analog or Digital input under control of microprocessor [26] **through user operation or automatically and** Analog signal will bypass OSD system [40] through switch [24] to output [60] will display without any degradation **indicates it on said display.** (Zeidler, ¶0021 to ¶0022).

Response to Arguments

6. Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALAN LUONG whose telephone number is (571)270-5091. The examiner can normally be reached on Mon.-Thurs., 8:00am-5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Beliveau can be reached on (571) 272-7343. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Date 12/18/2008

/Scott Beliveau/

Supervisory Patent Examiner, Art Unit 2427